

ACCOUNTING FOR BADS IN THE MEASUREMENT OF PRODUCTIVITY GROWTH: The Malmquist Cost Productivity Measure and its Application to U.S Agriculture^{*}

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This paper starts with the basic premise that the conventional measures of productivity growth, which ignore joint production of good and bad outputs, are biased. We then construct an alternative productivity growth measure using activity analysis. An application to U.S. agriculture demonstrates its usefulness. More specifically, we show that conventional measures of productivity are biased upward when production of undesirable (or bad) outputs is increasing. Conversely, this same measure of productivity is biased downward when externalities in production are decreasing.

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